PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Masashi OTSUKI, et al.

Docket No: Q79054

Appln. No.: 10/758,130

Group Art Unit: 1754

Confirmation No.: 5017

Examiner: Ngoc Yen M. Nguyen

Filed: January 16, 2004

For: SILICON CARBIDE POWDER AND METHOD FOR PRODUCING THE SAME

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Masashi Otsuki, hereby declare and state:

THAT I am a citizen of Japan;

THAT I have received the degree of Doctor in Engineering from Osaka University;

THAT I have been employed by BRIDGESTONE Corporation since 1994, where I hold a position as a Manager, with responsibility for R&D division ; and

THAT the following experiments were conducted by myself or under my direct supervision.

EXPERIMENTS

First, a resol xylene resin and a novolac xylene resin (Nikanol P-140 produced by Mitsubishi Gas Chemical Co., Inc.) are subjected to obtain Silicon Carbide by thermal calucination, and Figures 1 and 2 are obtained.

Next, silicon carbide powders Example and Comparative Example were prepared in the same manner as described in Example 1 of the present specification, except that the above-mentioned resol xylene resin and a novolac xylene resin, were used respectively, as a carbon source. The thus-prepared samples are analyzed by an X-ray diffractometer (XRD). The XRD profile and the produced therefrom are as follows:

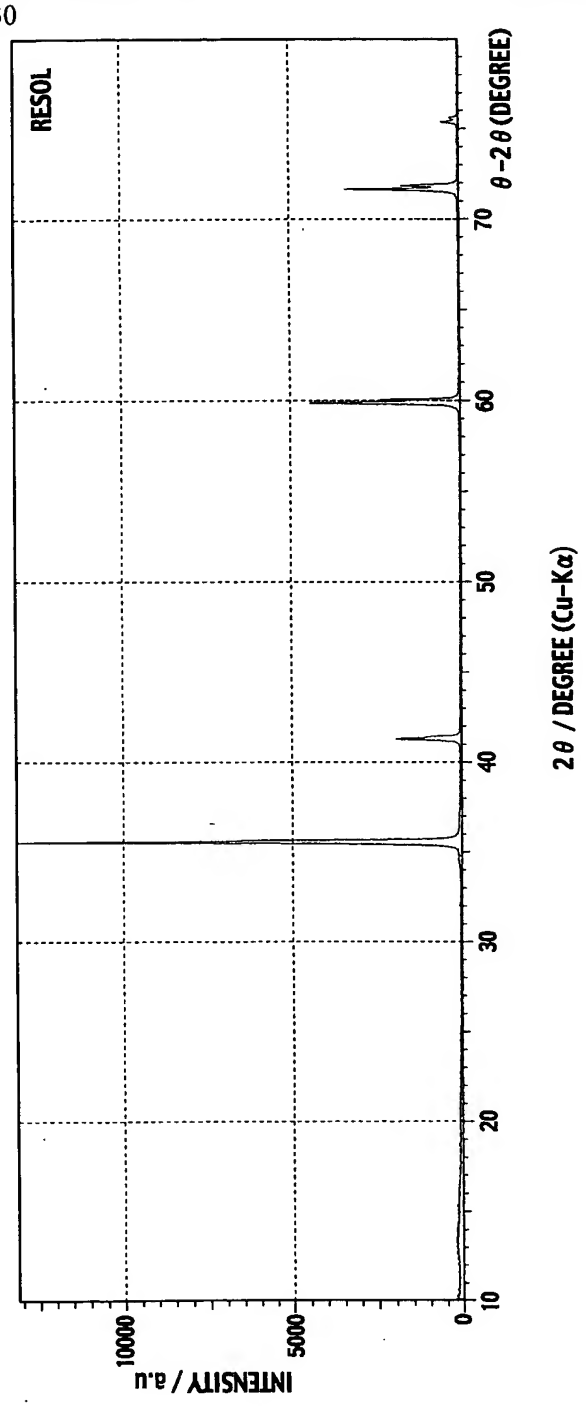
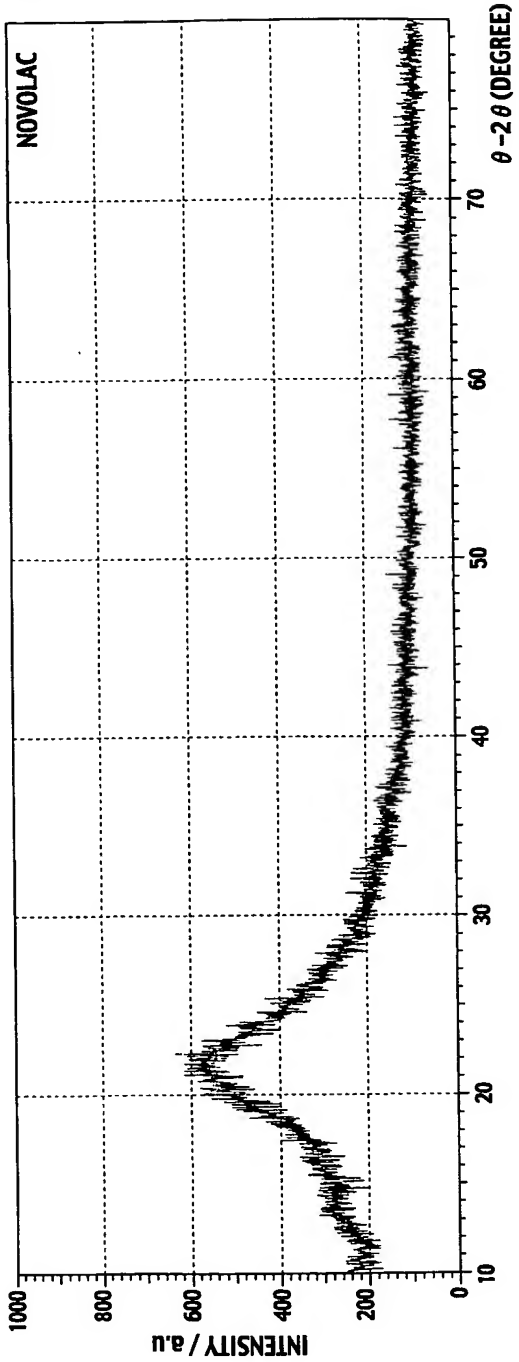
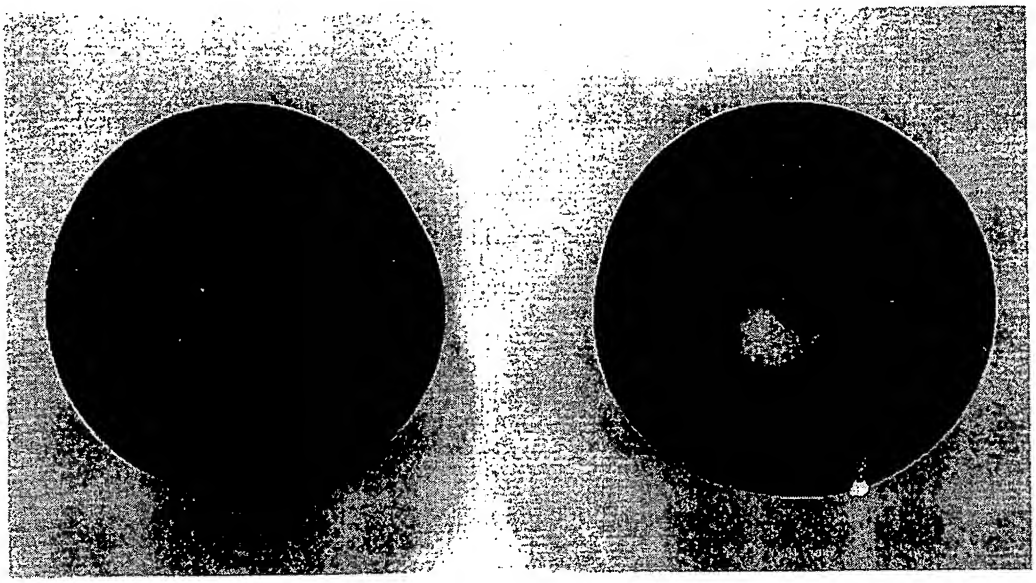


FIG. 1

FIG. 2





In the above charts, the left product represents Example and the right product represents Comparative Example.

As it is clear from the above charts, almost all of the product in Example was SiC (green color). In contrast, most of the product in Comparative Example was SiO_2 (white color).

Further, the reaction yields in Example and Comparative Example are summarized in the following Table. As shown, the yield of SiC in Comparative Example was about two third of that in Example:

Table

	Sic Yield (g)	SiO_2 Yield (g)
Example (Resol)	3.14	0
Comparative Example (Novolac)	2.36	1.27

I conclude that a silicon carbide single crystal cannot be prepared in Comparative Example because the SiC yield is too low.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: October 25, 2005

[name of the declarant]